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(FILE 'HOME' ENTERED AT 13:32:08 ON 16 APR 2003)

FILE 'CA' ENTERED AT 13:32:13 ON 16 APR 2003

L1 6399 S COLIFORM  
L2 225656 S COLI  
L3 1415 S L1 AND L2  
L4 779679 S MEDIUM OR MEDIA  
L5 261 S L3 AND L4  
L6 1799144 S DETECTION OR DETERMINATION  
L7 100 S L6 AND L5  
L8 1934 S METHYLUMBELLIFERYL  
L9 15 S L7 AND L8

FILE 'WPIDS' ENTERED AT 13:49:02 ON 16 APR 2003

L10 33 S L3 AND L4 AND L6  
L11 1023 S L8 OR FLURO?  
L12 2 S L10 AND L11

FILE 'USPATFULL' ENTERED AT 13:52:15 ON 16 APR 2003

L13 55 S L3 AND L4 AND L6 AND L8  
L14 1145 S INDOYL OR INDOXYL  
L15 25 S L14 AND L13

=> log hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
60.42	151.12

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
0.00	-10.54

CA SUBSCRIBER PRICE

SESSION WILL BE HELD FOR 60 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 13:56:05 ON 16 APR 2003

L9 ANSWER 14 OF 15 CA COPYRIGHT 2003 ACS  
AN 112:204339 CA  
TI A combined chromogenic-fluorogenic **medium** for the simultaneous  
**detection of total coliforms and Escherichia coli in water**  
AU Manafi, Mohammed; Kneifel, Wolfgang  
CS Hyg.-Inst., Univ. Wien, Vienna, A-1095, Austria  
SO Zentralblatt fuer Hygiene und Umweltmedizin (1989), 189(3), 225-34  
CODEN: ZHUMEO; ISSN: 0934-8859  
DT Journal  
LA German  
AB A comparison was made with different chromogenic and fluorogenic  
substrates, i.e., 4-methylumbelliferyl-.beta.-D-glucuronide  
(MUG), 4-nitrophenyl-.beta.-glucuronide (PNPG), 4-  
methylumbelliferyl-.beta.-galactopyranoside (MUGA),  
2-nitrophenyl-.beta.-galactopyranoside (ONPG), 5-bromo-4-chloro-3-indoyl-  
.beta.-D-galactopyranoside (X-GAL), for the rapid and simultaneous  
**detection of total coliforms** with Escherichia  
**coli** in water samples, based on 2 commercially available culture-  
**media**. The combination of the chromogenic compd. X-GAL (for  
detecting **coliforms**) and the fluorogenic compd. MUG (For  
detecting **E. coli**) incorporated either into ECD agar or into  
lauryl sulfate broth was most useful. The optimum concn. of the X-GAL/MUG  
supplement was 50 - 70 .mu.g/mL for solid **medium** (EMX agar) and  
60 - 70 .mu.g/mL for the fluid **medium** (LMX broth). As a result  
of the examn. of 244 Enterobacteriaceae strains isolated from water  
samples and clin. material, it was shown that the use of EMX agar (LMX  
broth) had several advantages over conventional methods. A routine method  
for the anal. of water samples was proposed involving the EMX agar and the  
LMX broth.


glucuronide (MUG) = E.Coli

galactopyranoside (MUGA) = coliform

Possible 102

ordered

L9 ANSWER 5 OF 15 CA COPYRIGHT 2003 ACS  
 AN 132:47249 CA  
 TI A test sheet for detecting **Coliform** organisms  
 IN Misawa, Masahiro  
 PA San Kagaku K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

  
*order*  
*Haraguchi*

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000000100	A2	20000107	JP 1998-183343	19980615
PRAI	JP 1998-183343		19980615		

AB A convenient test sheet is provided for accurately detecting **Coliform** organisms in foods. The base material (e.g., filter paper) of test sheet is soaked with a **detection** liq. prepd. by adding 5-bromo-4-chloro-3-indolyl-.beta.-galactopyranoside as a reaction substrate to bouillon culture **medium** contg. culture reagents. *Escherichia coli* is specifically detected by further including 4-methylumbelliferyl-.beta.-D-glucuronide as a reaction substrate. **Coliform** organisms including *Escherichia coli*, *Citrobacter freundii*, *Enterobacter aerogenes*, *Klebsiella pneumonia* exhibited pos. blue color on this test sheet after culturing for 24 h due to the hydrolysis of 5-bromo-4-chloro-3-indolyl-.beta.-galactopyranoside by .beta.-galactosidase, while other bacteria including *Salmonella typhimurium*, *Proteus*, *Pseudomonas* stayed neg. Upon UV irradiation, only *Escherichia coli* showed light blue fluorescence due to the hydrolysis of 4-methylumbelliferyl-.beta.-D-glucuronide by .beta.-D-glucuronidase. The test results obtained by this method with foods, water samples, and cooking utensils exhibited a good correlation with the results obtained by the conventional methods.

IC ICM C12Q001-04  
 ICS C12Q001-04; C12R001-19  
 CC 9-16 (Biochemical Methods)  
 Section cross-reference(s): 10  
 ST test sheet **Coliform** microorganism *Escherichia coli*  
 IT Culture **media**  
 (bouillon; test sheet for detecting **Coliform** organisms)  
 IT *Citrobacter freundii*  
**Coliform** bacteria  
 Cooking utensils  
*Enterobacter aerogenes*  
*Escherichia coli*  
 Filter paper  
 Food  
*Klebsiella pneumoniae*  
*Proteus* (bacterium)  
*Pseudomonas*  
*Salmonella typhimurium*  
 (test sheet for detecting **Coliform** organisms)  
 IT 7732-18-5, Water, analysis  
 RL: AMX (Analytical matrix); ANST (Analytical study)  
 (test sheet for detecting **Coliform** organisms)  
 IT 9001-45-0, Glucuronidase, .beta.- 9031-11-2, .beta.-Galactosidase  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (test sheet for detecting **Coliform** organisms)  
 IT 6160-80-1, 4-Methylumbelliferyl-.beta.-D-glucuronide  
 7240-90-6, 5-Bromo-4-chloro-3-indolyl-.beta.-D-galactoside  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (test sheet for detecting **Coliform** organisms)

L9 ANSWER 4 OF 15 CA COPYRIGHT 2003 ACS  
AN 132:250352 CA  
TI A rapid method for detecting **coliform** bacteria in food using  
.beta.-galactosidase as an index  
IN Yamada, Shoichi; Ohashi, Eiji  
PA Nippon Suisan Kaisha, Ltd, Japan  
SO Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000093195	A2	20000404	JP 1998-270370	19980924
PRAI	JP 1998-270370		19980924		

AB A rapid and accurate method is described for detecting the presence of **coliform** bacteria in a food material or measuring their no. according to the necessity using .beta.-galactosidase as an index. The .beta.-galactosidase activity is measured upon culturing a test sample or a test liq. contg. a fixed amt. of the test sample so as to increase the prodn. amt. of .beta.-galactosidase, an enzyme specific to **coliform** bacteria. In order to increase the prodn. amt. of .beta.-galactosidase, adenosine 3',5'-cyclic phosphate(c-AMP) and/or hexokinase for removing glucose and/or isopropyl-.beta.-D-thiogalactopyranoside (IPTG) are added to a culture **medium**. Preferably, a sensitive fluorescent substrate for .beta.-galactosidase (preferably, 4-methylumbelliferyl-.beta.-D-galactoside) is also added to the **medium**. Various **coliform** bacteria (e.g., *Escherichia coli*, *Klebsiella pneumoniae*) were accurately detected and measured by fluorometry using this method within 8 h.

IC ICM C12Q001-10  
ICS C12Q001-34; C12Q001-48; C12Q001-10; C12R001-19; C12R001-22  
CC 17-1 (Food and Feed Chemistry)  
Section cross-reference(s): 10

ST **coliform** bacteria detection beta galactosidase  
fluorometry

IT Budvicia aquatica  
Citrobacter amalonaticus  
Citrobacter freundii  
Citrobacter koseri  
Coliform bacteria  
Culture media  
Enterobacter aerogenes  
Enterobacter gergoviae  
Enterobacter intermedius  
Enterobacter sakazakii  
Escherichia coli  
Escherichia vulneris  
Ewingella americana  
Fluorescent substances  
Fluorometry  
Food analysis  
Klebsiella ornithinolytica  
Klebsiella oxytoca  
Klebsiella pneumoniae  
Klebsiella terrigena  
Leclercia adecarboxylata

(rapid method for detecting **coliform** bacteria using  
.beta.-galactosidase as index)

IT 9031-11-2, .beta.-Galactosidase  
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse);  
BPR (Biological process); BSU (Biological study, unclassified); ANST  
(Analytical study); BIOL (Biological study); PROC (Process)

(rapid method for detecting **coliform** bacteria using  
.beta.-galactosidase as index)  
IT 6160-78-7, 4-Methylumbelliferyl-.beta.-D-galactoside  
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST  
(Analytical study); BIOL (Biological study); USES (Uses)  
(rapid method for detecting **coliform** bacteria using  
.beta.-galactosidase as index)  
IT 60-92-4, c-AMP 367-93-1, IPTG 9001-51-8, Hexokinase  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(rapid method for detecting **coliform** bacteria using  
.beta.-galactosidase as index)

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